WHAT IS CLAIMED IS:

1. An isolated antibody or antigen binding fragment thereof which associates with either IGSF9 or LIV-1.

2. An isolated antibody or antigen binding fragment thereof which associates with IGSF9 between amino acids 21 to 718 as set forth in SEQ ID NO:2, between amino acids 21 to 734 as set forth in SEQ ID NO:8, the amino acid sequences as set forth in SEQ ID NOS:22-27; or with LIV-1 between amino acids 28 to 317, 373 to 417, 674 to 678 or 742 to 749, as set forth in SEQ ID NO:29.

3. The isolated antibody or antigen binding fragment of claim 2, wherein said antibody or antigen binding fragment comprises a domain deleted antibody.

4. The domain deleted antibody or antigen binding fragment thereof of claim 3, further comprising a cytotoxic agent.

5. The domain deleted antibody or antigen binding fragment thereof of claim 4, wherein said cytotoxic agent is a radionuclide.

6. The antibody or antigen binding fragment thereof of claim 1, wherein said antibody is humanized.

7. The antibody or antigen binding fragment thereof of claim 1, wherein said antibody is primatized.

8. An antibody or antigen fragment thereof which associates with IGSF9 or LIV-1, wherein said antibody or antigen binding fragment thereof inhibits one or more functions associated with IGSF9 or LIV-1.

9. A composition comprising an antibody or antigen binding fragment thereof which associates with IGSF9 or LIV-1.

10. A composition for the treatment of a neoplastic disorder comprising a domain deleted anti-IGSF9 or anti-LIV-1 antibody or antigen binding fragment thereof covalently linked to one or more bifunctional chelators.

11. The composition of claim 10, wherein said bifunctional chelator is selected from the group consisting of MX-DTPA and CHX-DTPA.

12. A method of treating a mammal exhibiting a neoplastic disorder comprising the step of administering a therapeutically effective amount of an antibody or antigen binding fragment thereof that associates with IGSF9 or LIV-1.

13. The method of claim 12 further comprising the step of administering a therapeutically effective amount of at least one chemotherapeutic agent to said mammal; wherein said chemotherapeutic agent and said antibody or antigen binding fragment thereof may be administered in any order or concurrently.

14. The method of claim 12, wherein said anti-IGSF9 or anti-LIV-1 antibody or antigen binding fragment thereof is a domain deleted antibody.

15. The method of claim 14, wherein said domain deleted antibody or antigen binding fragment thereof lacks the C_H2 domain.

16. The method of claim 12, wherein said antibody or antigen binding fragment thereof is humanized.

17. The method of claim 12, wherein said antibody or antigen binding fragment thereof is associated with a cytotoxic agent.

18. The method of clam 12, wherein said antibody or antigen binding fragment thereof is administered within two weeks of said chemotherapeutic agent.

19. A vaccine for treating cancer comprising the IGSF9 or LIV-1 polypeptide or a fragment thereof and a physiologically acceptable carrier.

20. The vaccine of claim 19, wherein said polypeptide comprises amino acids 1 to 1163 or amino acids 21 to 718 of IGSF9 as set forth in SEQ ID NO:2; or amino acids 1 to 749, amino acids 28 to 317, or amino acids 373 to 417 of LIV-1 as set forth in SEQ ID NO:29.

21. The vaccine of claim 19, wherein said physiologically acceptable carrier comprises an adjuvant or an immunostimulatory agent.

22. The vaccine of claim 21, wherein said adjuvant is PROVAX™.

23. The vaccine of claim 19, wherein said polypeptide is fused to a T helper peptide.

24. A method of inducing an immune response in a patient in need of treatment or prevention of cancer, comprising administering the vaccine of claim 19 to said patient.

25. A method of diagnosing cancer by detecting overexpression of IGSF9 or LIV-1, or a fragment thereof, comprising:

e. obtaining a sample from an individual in need of diagnosis of cancer;

f. detecting expression of IGSF-9 or LIV-1, or a fragment thereof in said sample;

g. detecting expression of IGSF-9 or LIV-1, or a fragment thereof in a control sample from a normal individual, or normal tissue from the individual being diagnosed; and

h. comparing the level of expression of IGSF-9 or LIV-1 to that obtained in the control sample, wherein said comparison results in diagnosing cancer.

26. The method of claim 25, wherein said IGSF9 fragment comprises exons 5-10.

27. The method of claim 25, wherein said overexpression is detected by nucleic acid amplification or hybridization.

28. The method of claim 25, wherein said overexpression is detected using an antibody to IGSF9 or LIV-1, or an antigen binding fragment thereof.

29. A method for determining the prognosis of an individual receiving a cancer treatment comprising:

e. obtaining a sample from said individual in need of prognosis of cancer treatment;

f. detecting expression of IGSF9 or LIV-1, or a fragment thereof in said sample;

g. detecting expression of IGSF9 or LIV-1, or a fragment thereof in a control sample from a normal individual, or normal tissue from the individual being diagnosed; and

h. comparing the level of expression of IGSF9 or LIV-1 to that obtained in the control sample, wherein said comparison results in a cancer prognosis.

30. The method of claim 29, wherein said IGSF9 fragment comprises exons 5-10.

31. A vaccine comprising as an active ingredient, an anti-idiotypic antibody that immunologically mimics the IGSF9 or LIV-1 antigens or fragments thereof.

32. A kit comprising the composition of claim 9 together with instructions for use thereof to treat or detect cancer.

33. A method of treating a neoplastic disorder in a mammal wherein neoplastic cells express the IGSF9 or LIV-1 antigens, comprising administering to said mammal a composition comprising a pharmaceutically effective amount of an antibody to IGSF9 or LIV-1, or an antigen binding fragment thereof.

34. A vaccine comprising a pharmaceutically acceptable carrier and an anti-tumor immune-response-inducing effective amount of an immunogenic preparation comprising IGSF9 or LIV-1, wherein said immunogenic preparation is capable of inducing an anti-tumor immune response.

35. An antisense nucleic acid up to 50 nucleotides in length comprising at least an 8 nucleotide portion of IGSF9 or LIV-1 which inhibits the expression of IGSF9 or LIV-1.

36. The nucleic acid of claim 35, wherein the antisense oligonucleotide comprises at least one modified internucleotide linkage.

37. A method of inhibiting the expression of IGSF9 or LIV-1 in cells or tissues comprising contacting said cells or tissues with the nucleic acid of claim 34 so that expression of IGSF9 or LIV-1 is inhibited.

38. An isolated nucleic acid selected from the group consisting of:

SEQ ID NO:3;
SEQ ID NO:5;
SEQ ID NO:12;
SEQ ID NO:13;
SEQ ID NO:14;
SEQ ID NO:15;
SEQ ID NO:16;
SEQ ID NO:17;
SEQ ID NO:18;
SEQ ID NO:19;
SEQ ID NO:20; and
SEQ ID NO:21.

39. A vector comprising the nucleic acid of claim 38.

40. A host cell comprising the nucleic acid of claim 38.

41. An isolated polypeptide selected from the group consisting of:

SEQ ID NO:4;
SEQ ID NO:6;
SEQ ID NO:22;
SEQ ID NO:23;
SEQ ID NO:24;
SEQ ID NO:25;
SEQ ID NO:26; and
SEQ ID NO:27.

42. A composition comprising the polypeptide of claim 41.

43. A vaccine for treating cancer comprising the polypeptide of claim 41 and a physiologically acceptable carrier.